APPLICATION OF QR CODES IN LIBRARIES: A STUDY OF SEMINAR LIBRARY OF DLIS, AMU ALIGARH

Mohammad Salim¹, Dr. Muzamil Mushtaq², Mr. Mohd Firoz³

¹(Librarian)

Ibn-e-Sina Tibbiya College and Hospital
Azamgarh, Uttar Pradesh
Email: mssazmi@gmail.com

²(Assistant Professor)

Department of Library & Inf. Science
Aligarh Muslim University
Email: naikoomuzamil@gmail.com

³(Research Scholar)

Department of Library & Inf. Science
Aligarh Muslim University
Email: fans0893@gmail.com

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Abstract

This examination has accepted the usage of QR codes in different zones of the library. There are such innumerable zones in the libraries where the usage of QR codes has been used for offering better kinds of help to the customers. Investigator pick the QR code programming "QR Stuff" for the produce of QR Codes in the wake of analyzing diverse programming like Adobe InDesign, QR-Code Monkey, QR Stuff, Kaywa QR Code, QFuse, Unitag QR and Visualead, at the same time the examination has found that possible usage of QR code among the different zones inside the library like rack plan, URL of library site, virtual visit through the library, overview of new makes a big appearance, openness of material, book reviews, book trailers, library's locales and library news.

Keywords: QR code, QR Stuff, Mobile development

I. INTRODUCTION

Phones got notable used devices in customary every day presence, so QR code (Quick Response Code) has become a standard course for acquiring information of express thing/event in our step by step life and different applications. QR Code is such a 2-D (two-dimensional) code, first made back in 1994. A Toyota helper named Denso Wave developed the code to help in the gathering collaboration, they upheld in after vehicles and parts (Nofal, 2020). It was proposed to think about fast unraveling speeds, along these lines the name Quick Response code. The QR code contains dim modules (square bits) arranged in a square system on a white establishment. The information encoded may be included data (numeric, alphanumeric, byte/twofold, Kanji) or, through maintained growths, essentially any sort of data. QR Code is prepared for dealing with a wide scope of data, as numeric and alphabetic characters, Kanji, Kana, Hiragana, pictures, twofold, and control codes (Shaheen and Gaonkar, 2013).

The picture variations of QR Code range from Version 1 to Version 40. Each variation has an other module game plan or number of modules (the module suggests the exceptionally differentiating recognizes that make up QR Code). QR codes can contain any alphanumeric substance and routinely incorporate URLs that quick customers to objections where they can get some answers concerning a thing or recognize (a preparation known as "flexible marking"). Unraveling programming on mechanical assemblies, for instance, camera phones interprets the codes, which address essentially more information than a one-dimensional code of near size. The codes are continuously found in spots, for instance, thing imprints, declarations, and constructions, inviting passers-by to pull out their mobile phones and reveal the encoded information. Codes can give following information to things in industry, coordinating data on a mailing imprint, or contact information on a business card. Minimal in size, the code model can be concealed or joined into a beautifully charming picture in papers, magazines, or clothing (Tiwari, 2016). A QR code is examined by an imaging contraption, similar to a camera, a wireless and there are number of different normalized label scanner applications, for instance, Red Laser, Barcode Scanner and QR Scanner that can scrutinize and unravel data from a QR code. A large portion of these are absolutely free, and all you need to do once you acquaint and just you need with use your phone's camera to channel the normalized tag, which will by then normally load the encoded data for you (Sahu and Gonnade, 2013).

The amount of uses using QR code is growing and achieves various spaces like clinical consideration, business, guidance and redirection are clear. In libraries, various likely domains for using QR codes with the help of QR code programming and adaptable advances. Libraries can use QR Codes for library visits, shows and shows with the objective that customers can essentially check the codes and get the information related to these organizations (Wilson, 2017). Library introductions that fuse a QR Code associate with tunes, accounts, destinations, studies, challenges, etc or other information that expands the presentations. Craftsmanship shows or enduring workmanship in libraries with a QR Code interfacing with the experts' locales. Any combination in the library that has an online portion is sensible game for using QR Codes in the stacks. It might be added to print journal racks, interfacing with electronic transformations. Outstanding combinations could association with metadata, video, computerized broadcast, analysis, etc with their territory on the racks (Pons et. at. 2011).

II. LITERATURE REVIEW

Tu and Hwang (2020) study means to research the difference in the positions of libraries, application examples and potential investigation issues of library-maintained adaptable learning. The examination studied and analyzed various conveyances and tracks down that the piece of libraries as learning material providers is assessed the most in library-maintained versatile learning looks at, followed by the work as solicitation setting providers and as data sharing stages. To the extent the part as learning material providers, educational libraries were investigated the most and radio repeat recognizing evidence (RFID) was overwhelmingly embraced. To the extent the part as solicitation setting providers, remarkable libraries were examined the most; got recognizing progresses were more different (for instance QR code, expanded reality, RFID and Global Positioning System). As demonstrated by Xiaojun, et al. (2019), the types of progress in mechanized thinking and flexible robots, a bit of the dreary yet essential situations in current libraries, like book getting to and returning (BAR) exercises that had been

fulfilled genuinely already, could be endeavored by robots. As a result of the confined exactnesses of the current arranging and course (P&N) progresses and the operational errors gathered inside the robot P&N measure, in any case, by far most of the current robots can't fulfill such high-precision exercises. To address these practical issues, we propose, strangely (clearly), to join the binocular vision and Quick Response (QR) code ID systems together to improve the robot P&N correctnesses, and thereafter build up an independent library robot for high-precision BAR errands.

Mansouri and Asl (2019) study intends to explore the principal parts expected to develop a feasible flexible application for giving library organizations to its customers. The examination was coordinated in a clarifying survey plan. The quantifiable people set up the libraries generally speaking using flexible applications to give library organizations to the customers of educational and public libraries. According to the assessment customers of academic and public libraries, course and re-energize, search, ask a clerk and library hours were considered as the most central organizations to be associated with library versatile applications. Chung, et al. (2019) recommend that Mobile progressions, for instance, QR codes, accept a particularly huge part in stage the adolescent customer's dynamic learning in easygoing conditions. The inspiration driving this paper is to take a gander at the impact of QR code separating on two easygoing learning results: extended income and more significant data understanding. The assessment finds that by far most of the children's income in getting some answers concerning animals was upheld on account of the experience. The result of study uncovers that QR code separating was incredible in propelling data gains, especially on subjects that are pursuing for the easygoing understudy.

Wilson (2017) proposes the normal usage of Quick Response (QR) codes in the library organizations. The examination focused for the usage of QR Codes in the libraries create with more mediated use, for instance, associating the genuine library space with the virtual space, induction to Harvard's "Get It" online interface (interlibrary advance, Borrow Direct, Scan and Deliver, etc), and associations with more information from expressive show and display lobby cards. He further recommended that libraries should advance the endeavor to lead QR Codes in their Libraries to offer the best sorts of help to their customers. Mishra et al. (2017) analyzed the central thought, structure, mechanical benefits and impediments of the QR code and the communication how might it work. They portrayed the normal uses for Quick Response (QR) codes in the library practices like e-resource the board, library bearing, OPAC, Linking to electronic resources from inside the library, information about library space, the library stock, etc They recommended that QR Code can be made for library collection, designing arrangement of library building, computerized books, visiting cards, bookmarks, customer manual or blog.

Iranna (2016) gave a comprehensive examination of use of QR codes development in libraries, with interesting reference to QR code executions in Central Library, NITK. In this assessment the maker has endeavored to explain the usage of QR Codes via completing it in Libraries to interface customer neighborhood make care about its resources, organizations and events. Ramón and Manuel (2016) coordinated an examination on Practical uses of QR codes in educational libraries. The assessment was made in two stages; basically an examination of the composing was coordinated to choose the speculative construction key the usage of this gadget for information capability. The ensuing part reviewed the utilitarian usage of this mechanical assembly, with cases of a couple of school libraries.

Hsien-Tang and Lawrence (2014) developed a structure in the Art Gallery which used smart response (QR) codes as the setting careful segments, Facebook as the establishment of SNSs, and splendid phones as the human-machine interfaces. Visitors could impel the overseeing organizations by inspecting the QR codes of the interested show things. They coordinated an outline which showed that 94% of the participated visitors have pleasantly assessed this new controlling system. Fei Xu (2014) study focused in on QR Codes in libraries concerning bibliographic records. He inspected and elucidated the techniques for delivering QR Code for library bibliographic records and besides he explained its applications in educational libraries.

Lo Leo, Coleman and Danielle (2013) gave the experts a framework to overview the utilization of QR codes also as what the libraries could give on that stage. The makers found that allies generally find QR codes easy to use and would welcome a collection of library organizations on their PDAs. Ioannis (2013) finds that QR (Quick Response) Codes are used to store different kinds of information like an association,

plain substance, SMS text, addresses, URLs, Geo-territory, email, phone numbers or contact information. QR Codes are continuously getting their reputation as they appear in more places in the metropolitan environment. QR Codes can be considered as real hyper-joints that empower to customers to access, through their PDAs that can check QR Codes, additional information arranged in a site page. Schultz (2013) admonished that Libraries and display corridors ought to use QR codes to offer an unrivaled help, viable and possibly indispensable resource for information plan. He showed that QR codes could be fittingly used in libraries and exhibitions. He in like manner recommended that QR codes are an astute plan appeared differently in relation to NFC and RFID, without requiring extra uncommon gear. So libraries should complete this development to offer better sorts of help to their customers.

Abarca et. al. (2012) analyzed that Internet access from cells has grown fundamentally. This new setting has incited the arrangement of various convenient web contraptions which offer a collection of features, similar to adaptability of sites, use of QR codes (Quick Response), geo-territory instruments, augmented reality and RFID advancement. They recommended that we should take QR codes advancement as an opportunity to change the library to the new demands or needs of our customers. Whitchurch (2011) gave customer tendencies with respect to coordinating a visit in the library at Brigham Young University, using a downloadable sound record open by methods for various sources, including QR codes. The examination avowed that customers like the development, as they can use their own PDAs for playback, act autonomously and not actually in a social event, absolute the course at their own speed, have the decision to save zones on their contraption for checking out elsewhere and have the choice to follow their territory and a while later get information in the fitting setting. Massis (2011) investigated the inspiration driving using smart response (QR) codes which are being used in libraries according to different perspectives, for instance, interfacing the QR Codes in zones including craftsmanship show information and associations with resources about the trained professionals, associations with library sound visits, information concerning the library's substance advising organization, associations with video information, codes on diagnostic room doorways related with room reservations, a code relationship with PC reservations structure and advanced book access in libraries.

Pons et al. (2011) gave a layout of the use of QR codes in the library of the Technical University of Valencia, as a way to deal with improve the customer experience with the usage of organizations, portraying all of the exercises and the strategies followed for all of these. The makers gave a couple of ideas to delivering QR codes, including highlighting that the information needed in short and preferably using a URL instead of text for ease of use and to avoid a couple of issues with pictures or accents. Walsh (2010) recommended that QR Codes are easier to interface around the libraries to resources and information fitting to their region. QR Codes can be scrutinized by cells with joined cameras at the University of Huddersfield. He has used QR codes to pass on setting appropriate help and information to darken the cutoff points between the physical and electronic world. He made adaptable friendly materials to pass on information capacities materials clearly to their customers at the spot of need, associated by QR codes on printed materials and on fitting territories in the real library. He spread out the practical uses for QR codes and given essential results of how they can get by their l

Aims and objectives of the Study

The current assessment is highlighted using QR code development in different organizations of the class library of Department of Library and Information Science, Aligarh Muslim University, Aligarh and is set somewhere near after targets:

- To use QR Codes in inventoriing of the class library.
- To use QR Codes in rack game-plan of library material.
- To give QR Codes subject to book trailer/book reviews.
- To give virtual visit through the library throw video show.
- To use QR Codes for Shelf List, e-resources and library site.
- To make QR Codes for Library News, Announcement, pictures and other library material.
- To make QR code for list new makes a big appearance resources in the workshop library.

Scope and Limitations of the Study

There are such countless areas in the libraries where the use of QR codes has been utilized for offering better types of assistance to the clients. Specialist pick the region for the utilization of QR codes inside the library like rack plan, virtual visit through the library, give rundown of fresh introductions, exposure of material, book audits, book trailers, library's sites and library news. Scientist picks programming, "QR Stuff" from the quantity of QR codes programming like Adobe InDesign, QR-Code Monkey, QR Stuff, Kaywa QR Code, QFuse, Unitag QR and Visualead and so on. The extent of the current investigation is restricted to the utilization of QR code programming "QR Stuff" for use of QR codes in the Seminar Library of Department of Library and Information Science, Aligarh Muslim University, Aligarh.

III. METHODOLOGY

In the wake of analyzing content on the select subject, through reviewing the composing available both print similarly as on the web, the researcher has considered diverse programming and gone through the review of around 7 programming like Adobe InDesign, QR-Code Monkey, QR Stuff, Kaywa QR Code, QFuse, Unitag QR and Visualead all the while the examination has found that among the particular programming open 'QR Stuff' is straightforward and simple to utilize. Furthermore, QR Stuff is a free application that can be downloaded on any iOS or Android contraption. The QR Stuff is having unmistakable specific features like we can add our Facebook, Twitter, LinkedIn and Instagram profiles into it. What's more, pdf records, boundless characters, email, Youtube url, pictures, Google-guide, Dropbox and itunes, etc. Other than this, the current assessment picked the workshop library of Department of Library and Information Science, Aligarh Muslim University, Aligarh. Class Library have fulfill the need of present examination since workshop library of the division is affluent in collection involving 5594 books, 403 bound volumes of periodicals and around 9 current journals of public and worldwide reputation. The library has been robotized with Alice for Windows since 2003, when it was allotted as the principle totally modernized library of Aligarh Muslim University and their infrastructural workplaces fuse induction to online free rundown (OPAC) and CD Rom dataases, Internet workplaces for staff and understudies. Finally, QR code programming "QR Stuff" was picked for the application and usage of QR codes in different zones for instance posting, rack blueprint, library visit, book trailer, region of arrangement and video display, etc in the workshop library of Department of Library and Information Science, Aligarh Muslim University, Aligarh.

Data Analysis and Interpretation

This assessment has accepted the use of QR code programming "QR Stuff" with its possible utilization of QR code in different districts of the library for instance arranging, rack blueprint, library visit, URL of library website and various organizations, etc. QR Stuff is a free application that can be downloaded on iOS or Android contraption. QR Stuff is having assorted explicit features like we can add our Facebook, Twitter, LinkedIn and Instagram profiles into it. The QR Stuff grants you to make either extraordinary or static QR codes and download them without a doubt fire use. The QR Stuff licenses customers to analyze QR codes essentially and successfully from inside your program with no convincing motivation to download and present QR code checking application or QR code peruser programming. Just we can check the QR code through camera and find the information as text, picture and pdf, etc. In the workshop library of DLIS, AMU Aligarh, the expert has picked six areas for the utilization of QR code with the help of QR Stuff programming. There are six domains where the use of QR code in workshop library of DLIS, AMU Aligarh has been considered and these are inspected as under:

QR Codes for Shelf List

1. The rack list is a bibliographic record facilitated by call number, that is, the entries are coordinated in comparative solicitation as the materials on the racks.
2. In the workshop library Investigator created QR Code for the books which have been talented by the Prof. P.B. Mangla. It consolidates 362 books. The data is assembled from the Seminar Library and encoded into QR Code generator close by their bibliographical nuances like maker, distributor, spot and year. Data was changed over into pdf plan, after that pdf record was encoded into QR Code generator. So made, QR Code can be stuck on the racks of P.B. Mangla

arrangement. In the wake of looking at the code the once-over of skilled books will be on the screen of customer's wireless with every one of the recently referenced nuances.

P.B. Mangla collection

QR Codes for Library websites

URL of the Library site, AMU site and Department site was encoded into QR Code. It will in general be stuck on the divider or entrance of Library and Department with the objective that understudies, in the wake of separating the code can clearly be associated with the different locales.

URL of the AMU

URL of the DLIS, AMU

URL of the Library

Publicity of latest materials

Library can set up a summary of New Arrivals, and the once-over can be encoded into QR Code. The made Code can be stuck on the stacks and library can use QR Code to arrange customers toward the New Arrival list. Resulting to separating, PDAs will interface subsequently to the summary. Customer will be prepared to see what's happening in the library.

List of New Arrivals

Virtual Tour of Library

Virtual visit is a widely inclusive viewpoint or video diversion of a current detect that can be seen on the web. A virtual visit is ordinarily a collection of comprehensive pictures that are played in gathering to see like a moving video with added sound and text impacts, or a virtual visit may use models rather than real accounts and pictures.

For the virtual visit through AMU and its Library, the URL of the accounts have been taken from Youtube, and thereafter URL of the two chronicles have been encoded into QR Code. So the made QR Codes can be stuck on the Entrance Gate of MAL (Maulana Azad Library), customers will inspect the code and thusly planned to the video.

Video of AMU

Video of MAL

QR Codes in Cataloguing

The current examination applied the QR Codes have been made for books, journals and proposals with its whole bibliographical nuances like essayist, title, distributor, year, etc in the Seminar library of DLIS, AMU, Aligarh using the QR Stuff generator. Resulting to analyzing the codes, customer can get all the bibliographic information each book, journal and papers.

QR Code generation for Books

1. For making the QR Codes for books, two books are taken from the Seminar Library. After that whole bibliographical nuances (as referred to under with QR Codes) are added into the QR Code generator. So customers can inspect the codes through their PDAs, they don't need to pen it down. They can clearly go to the racks and can take the books.
2. **TITLE - Information sources in Science and Technology**

Subject- Information Technology

- Maker Hurt, C.D
- Spot of Publication-Englewood
- Year of Publication-1998
- Distributer Libraries Unlimited
- Form third
- Advancement No. 894327
- Call No. 016.5 H94I
- ISBN-1-56308-531-3
- TITLE- Documentation

- Subject-Documentation
- Maker Bradford, S.C.
- Spot of Publication-Washington D.C.
- Year of Publication-1950
- Distributer Public Affairs Press
- Increment No. 117413
- Call No. 010 B77D
- Delivery first

QR Code generation for Journals

For making the QR Codes for Journals, two journals have been taken from the Seminar Library of DLIS. After that all of the bibliographic nuances are added into the QR Code generator "QR Stuff". Adding the part by section rundown of each issue would help the customers, so directly through their high level cell phone they can come to know which journal is of their usage. Customer can inspect the codes through their PDAs, and get the entire bibliographic information journal.

Title - The Library Quarterly

Volume - 86,

Issue No. 3,

Repeat - Quarterly,

Year - July 2016

Director - Paul T. Jaeger

Distributer - The University of Chicago Press

ISSN - 0024-2519

Substance of the Issue

- Teens, Technology and Libraries: An Uncertain Relationship. (pp. 248)
- Public Libraries Building Digital Inclusive Communities: Data and Findings from the 2013 Digital Inclusion Survey. (pp.270)
- For All the People: Public Library Directors Interpret Intellectual Freedom. (pp.290)
- Making, Makers, and Maker spaces: A Discourse assessment of Professional Journal Articles and Blog Posts about Makerspaces in Public Libraries. (pp.313)
- Assessment IN PRACTICE
- Library Escape: User-Centered Design of an Information Literacy Game. (pp.330)
- Reviews (pp.356).

Title - Journal of Education for Library and Information Science

Volume - 55, Issue No. 2,

Repeat - Quarterly,

Year - April 2014

Article administrator - Peta Wellstead

ISSN - 0748-5786

Distributer - Association for Library and Information Science Education

Contents of the Issue

- Real Learning Connections: Questioning the Learner in the LIS Internship. (pp. 89)
- Digital Advocacy Stories: A Pedagogical Tool for Communicating and Strengthening Library Values. (pp.100)
- If Not Us, Who? Online Media Policy and the iSchool Classroom. (pp.112)
- Using Etherpads as Platforms for Collaborative Learning in a Distance Education LIS Course. (pp.133)
- Learning Portal: Analyzing Threshold Concept Theory for LIS Education. (pp.150)
- Community Informatics Studio: Designing Experiential Learning to Support Teaching, Research and Practice (pp.166)
- ALISE Research Grant Paper
- Information Vaccine: Using Graphic Novels as a HIV/AIDS Prevention Resource for Young Adults. (pp.178).

QR Code generation for Dissertations

Two theories are browsed the Seminar library, and the bibliographical nuances with section by part rundown of each proposition is encoded into the picked QR Code generator. In this way, in the wake of checking the codes, customers can picked their optimal source. This is the advantage of QR Codes significantly more information can without a very remarkable stretch be added into it.

TITLE - Information Sources Consulted by P Students of Social Science Faculty in AMU

Nida Khan

Executive Syed Mustafa K. Q. Zaidi

Year of Submission-2010

Roll NO. 09-LSM-20

Enrolment no. GC - 0071

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TITLE – Knowledge Preservation and Conservation: A Bibliometric Study

Mohammad Asif

Head Sudharma Haridasan

Year of Submission-2010

Roll NO. 09-LSM-02

Enrolment no. GC – 3358

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- Bibliography (pp. 143-146)

QR Code generation for Book Trailer

For creating the QR Codes for book trailer, two books are taken from the Seminar Library. After that whole bibliographical nuances including the part by section control are added into the QR Code generator. So customers can look at the codes through their mobile phones, they can get the information about the file through the rundown of sections.

TITLE- Library Education in India Pakistan And Iran

- Subject-Library and Information Science
- Author Anis Khurshid
- Spot of Publication-Delhi
- Year of Publication-1987
- Distributer Indian Bibliographies Bureau
- Advancement No. 575611
- Call No. 020.71154
- ISBN-81-85004-19-9
- Form first

Substance

- Editor's introduction
- Early days of the division of library sciences
- Across the constraints of culture
- Library and information guidance
- Islam, Knowledge and Librarianship
- The issue of library preparing in Iran
- Library preparing in Iran and Pakistan
- American library guidance and library progression
- Teaching illustration of library and information science

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- The issue of library tutoring in Iran
- Library guidance in Iran and Pakistan
- American library guidance and library improvement
- Teaching illustration of library and information science

TITLE- Use of Social Sciences Literature

- Subject-Information Services
- Creator Roberts, N.
- Spot of Publication-London
- Year of Publication-1977
- Distributer Butter Worths
- Increase No. 502037
- Call No. 016.3 R58U
- ISBN-0-408-10602-6
- Release second

Contents

- Communication and the bibliographical arrangement of the sociologies
- The data needs and wellsprings of financial matters
- The writing of humanism and the example of examination and recovery
- Politics and information files
- The writing and wellsprings of social human studies
- The writing and wellsprings of training
- Environmental arranging data

IV. CONCLUSION

In present day times, the usage of convenient advancement has gotten celebrated. In libraries, various potential regions have been overseen through the usage of programming and flexible advances, which are maintained by the utilization of QR code. QR code development is a marvel that has been in various periods of headway all through the long haul, and it benefits those libraries who are expecting full rich organizations later on. The current assessment applied the QR code development on books and journals in the class library. Resulting to applying QR code strategy, the assessment has found that whole bibliographical information and other detail can be gotten to through text, URL, pdf, video and pictures with the help of QR Stuff programming. QR code advancement can moreover be used to help customer according to numerous perspectives through video show, characterizing, and rack strategy, etc

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